

## **Amendments to the Claims:**

*This listing of claims will replace all prior versions, and listings, of claims in the application:*

1. (currently amended) A mechanical handle switch assembly integrated within a door of a vehicle and utilized for actuating a vehicle-based system, comprising:

    a door handle mechanism coupled to the door for actuation by a user, said door handle mechanism being movable in a substantially outboard direction for both actuating the vehicle-based system and unlatching the door;

    a drive train mechanism coupled to said door handle mechanism and being actuated by said door handle mechanism;

    a switch device operatively coupled to said drive train mechanism and being selectively operated by said drive train mechanism to actuate said vehicle-based system;

    said drive train mechanism having a predetermined gear ratio such that an initial movement of said door handle mechanism operates said switch device;

    said drive train mechanism including a first gear member, a second gear member, and a cam mechanism;

    said first gear member extending from said door handle mechanism, the first gear member having a first radius;

    said second gear member operatively coupled to said first gear member, the second gear member having a second radius that is less than the first radius;

    said cam mechanism integrated with said second gear member and directly contacting said switch device for operating said switch device, the cam mechanism having a third radius that is greater than the second radius;

    a dampening mechanism coupled to one of said door handle mechanism and said drive train mechanism for slowing movement of said door handle mechanism and said drive train mechanism;

    wherein said door handle mechanism is moveable within a predetermined travel distance, said predetermined travel distance including a switch-triggering distance and an unlatching distance that is greater than and inclusive of said switch-triggering distance, said door handle mechanism being moved by said switch-triggering distance for actuating said switch

device, said door handle mechanism being moved by said unlatching distance for unlatching the door, said unlatching distance sized greater than said switch triggering distance such that a controller ~~can authorize~~ authorizes entry prior to said door handle mechanism unlatching the door.

2-3. (canceled)

4. (previously withdrawn) The mechanical handle switch assembly recited in claim 1 wherein said door handle mechanism has a pull configuration for unlatching the door.

5. (original) The mechanical handle switch assembly recited in claim 1 wherein said door handle mechanism has a lift configuration for unlatching the door.

6-7. (canceled)

8. (previously withdrawn) The mechanical handle switch assembly recited in claim 1 wherein said drive train mechanism is a lever mechanism.

9. (currently amended) The mechanical handle switch assembly recited in claim 1 wherein said switch device is biased to [[an]] a normally open position from which the switch device is actuated to a closed position when the handle mechanism is moved to the switch-triggering distance.

10. (currently amended) A passively actuated vehicle system comprising:  
a mechanical handle switch assembly integrated within a door of a vehicle and utilized for actuating a vehicle-based system, comprising;

a door handle mechanism coupled to the door for actuation by a user, said door handle mechanism, being moveable in only a counter-clockwise direction between a non-lifted position and at least one lifted position, the counter-clockwise direction being in a substantially outboard direction for both actuating the vehicle-based system and unlatching the door;

a drive train mechanism coupled to said door handle mechanism and being actuated by said door handle mechanism;

a switch device operatively coupled to said drive train mechanism and being selectively operated by said drive train mechanism to actuate said vehicle-based system;

said drive train mechanism having a predetermined gear ratio such that an initial movement of said door handle mechanism operates said switch device;

said drive train mechanism including a first gear member, a second gear member, and a cam mechanism;

said first gear member extending from said door handle mechanism;

said second gear member operatively coupled to said first gear member;

said cam mechanism integrated with said second gear member and directly contacting said switch device for operating said switch device;

a damping mechanism coupled to one of said door handle mechanism and said drive train mechanism for slowing movement of said door handle mechanism and said drive train mechanism

wherein said door handle mechanism is movable only in one direction from the non-lifted to lift within a predetermined travel distance, said predetermined travel distance including a switch-triggering distance and an unlatching distance that is greater than and inclusive of said switch-triggering distance, said door handle mechanism being moved by said switch-triggering distance for actuating said switch device, said door handle mechanism being moved by said unlatching distance for unlatching the door;

a controller;

a vehicle-based transceiver coupled to said controller;

a portable transponder carried by a user and utilized for communicating with said vehicle based transponder;

a locking mechanism coupled to said controller for actuation by said controller;

said switch device coupled to one of said controller and said vehicle-based transceiver, and in use actuating said vehicle-based transceiver to transmit a challenge signal to said portable transponder;

said locking mechanism unlocking said door after said controller determines that said user is an authorized entity,

wherein the ratio of said unlatching distance to said switch triggering distance is configured such that said controller authorizes entry prior to said door handle mechanism unlatching the door.

11. (previously presented) The passively actuated vehicle system recited in claim 10 wherein said switch-triggering distance is substantially less than said unlatching distance.

12. (withdrawn) The passive entry system recited in claim 10 wherein said door handle mechanism has a pull configuration for unlatching the door.

13. (previously presented) The passively actuated vehicle system recited in claim 10 wherein said door handle mechanism has a lift configuration for unlatching the door.

14-15. (canceled)

16. (withdrawn) The passive entry system recited in claim 10 wherein said drive train mechanism is a lever mechanism.

17-20. (canceled)

21. (previously presented) The passively actuated vehicle system recited in claim 10, wherein said passively actuated vehicle system is a passive entry system for a vehicle.

22. (new) The mechanical switch assembly recited in claim 1 further comprising a dampening mechanism coupled to one of said door handle mechanism and said drive train mechanism for slowing movement of said door handle mechanism and said drive train mechanism.

23. (new) The mechanical switch assembly recited in claim 22 wherein the damping element increases an amount of time required to move the door handle mechanism from the switch-triggering position to the unlatching position.

24. (new) The mechanical switch assembly recited in claim 22 wherein the damping element resists movement of the door handle mechanism only between the switch-triggering position and the unlatching position.

25. (new) The passive entry system recited in claim 10 wherein the first gear member has a first radius, the second gear has a second radius that is less than the first radius and radially aligned with the first radius, the cam mechanism has a third radius that is greater than the second radius and inboard of the radially aligned first and second radii, and wherein the third radius defines more than 50% of a perimeter of the cam mechanism and a fourth radius that is less than the third radius defines most of a rest of the perimeter not defined by the third radius.

26. (new) A mechanical handle switch assembly integrated within a door of a vehicle and utilized for actuating a vehicle-based system, comprising:

a door handle mechanism coupled to the door for actuation by a user, said door handle mechanism being movable in a substantially outboard direction for both actuating the vehicle-based system and unlatching the door;

a drive train mechanism coupled to said door handle mechanism and being actuated by said door handle mechanism;

a switch device operatively coupled to said drive train mechanism and being selectively operated by said drive train mechanism to actuate said vehicle-based system;

said drive train mechanism having a predetermined gear ratio such that an initial movement of said door handle mechanism operates said switch device;

said drive train mechanism including a first gear member, a second gear member, and a cam mechanism;

said first gear member extending from said door handle mechanism, the first gear member having a first radius;

said second gear member operatively coupled to said first gear member, the second gear member having a second radius that is less than the first radius and radially aligned with the first radius;

said cam mechanism integrated with said second gear member and directly contacting said switch device for operating said switch device, the cam mechanism having a third

radius that is greater than the second radius and inboard of the radially aligned first and second radii;

wherein said door handle mechanism is moveable within a predetermined travel distance, said predetermined travel distance including a switch-triggering distance and an unlatching distance that is greater than and inclusive of said switch-triggering distance, said door handle mechanism being moved by said switch-triggering distance for actuating said switch device, said door handle mechanism being moved by said unlatching distance for unlatching the door, said unlatching distance sized greater than said switch triggering distance such that a controller authorizes entry prior to said door handle mechanism unlatching the door.

27. (new) The mechanical switch assembly recited in claim 1 further comprising a dampening mechanism coupled to one of said door handle mechanism and said drive train mechanism for slowing movement of said door handle mechanism and said drive train mechanism, wherein the damping element increases an amount of time required to move the door handle mechanism from the switch-triggering position to the unlatching position, and wherein the damping element resists movement of the door handle mechanism only between the switch-triggering position and the unlatching position.